

## CLAIMS

1. A liquid fuel oil warming device, comprising:
  - a fuel oil conversion cylinder containing a fuel oil body therein, and provided with a fuel oil filling port used for adding fuel oil, a constant-temperature means, and a fanning means used for feeding air into said fuel oil conversion cylinder beneficial for generating oil vapor containing fuel oil and then for outputting said oil vapor from said fuel oil conversion cylinder;
  - a vapor transportation pipe, one end of which is connected to said fuel oil conversion cylinder for delivering fuel vapor; and
  - a warming burner for burning oil vapor received from said vapor transportation pipe to warm.
2. The fuel oil warming device according to Claim 1, wherein said fanning device in said fuel oil conversion cylinder is connected with a fanning pipe for delivering air to the bottom of said fuel oil conversion cylinder and releasing same into said fuel oil body.
3. The fuel oil warming device according to Claim 2, further comprising a check valve provided between said fanning means and said fanning pipe for the prevention of an adverse flow of air, fuel air, and oil vapor.
4. The fuel oil warming device according to Claim 1, wherein said fanning means includes a fanning motor.
5. The fuel oil warming device according to Claim 4, wherein said fanning motor is a low-pressure fanning motor.
6. The fuel oil warming device according to Claim 4, wherein a fanning pressure supplied by said fanning motor ranges from 0.03 to 0.06 kg/m<sup>2</sup>.
7. The fuel oil warming device according to Claim 4, further comprising a pressure-controlling switch in said fanning means for stopping the operation of said fanning means if an accumulation of pressure inside said fuel oil conversion cylinder increases.
8. The fuel oil warming device according to Claim 4, further comprising a battery in said fanning means for saving and supplying electric power required for said fanning motor.
9. The fuel oil warming device according to Claim 1, wherein said constant-temperature means includes a temperature controller, and a constant-temperature rod, said constant-temperature rod extending closely to the bottom of said fuel oil conversion cylinder to deeply penetrate into said fuel oil body for maintaining a constant temperature
10. The fuel oil warming device according to Claim 1, wherein a vapor outlet valve is

provided at a connection of said fuel oil conversion cylinder with said vapor transportation pipe, allowed for opening, closing, and adjusting a discharging flow of oil vapor.

11. The fuel oil warming device according to Claim 1, wherein said fuel oil body includes a common solvent, n-Hexane, and an interface active agent capable of mutually combining water with oil.

12. The fuel oil warming device according to Claim 11, wherein said fuel oil body further includes a perfume.

13. The fuel oil warming device according to Claim 1, wherein said warming burner comprises:

a supporting stand for supporting the whole structure of said warming burner,  
a burner head provided at the top end of said supporting stand to be connected to said vapor transportation pipe for introducing oil vapor to ignite, in order for achieving a warming effect; and

a meshed cover encircling around the periphery of said burner head for the prevention of the danger of firing resulted from the approach of miscellaneous objects.

14. The fuel oil warming device according to Claim 13, wherein said warming burner further includes a bracket, provided at the top end of said supporting stand for supporting and connecting to said meshed cover.

15. The fuel oil warming device according to Claim 13, wherein said warming burner further includes a check valve, provided on said supporting stand, two ends of which are connected to said vapor transportation pipe and said burner head, respectively, for introducing and adjusting the flow of oil vapor.

16. The fuel oil warming device according to Claim 15, wherein the structure of said burner head includes a vapor inlet and a disk-shaped structure, a side ring of said disk-shaped structure being provided with a plurality of fire outlets.

17. The fuel oil warming device according to Claim 13, wherein said warming burner further includes a reflecting cover, covering the top end of said meshed cover for reflecting hot air and heat radiation generated by said burner head for the enhancement of the warming effect.

18. The fuel oil warming device according to Claim 13, wherein said warming burner further includes a fixed base used for fixing said supporting stand on the upper surface of said fuel oil conversion cylinder.